

7/21/50, 7/21/50

The reaction of some 2-substituted derivatives of 4-aminopyridine with nitrous acid. IV. 2-Methoxy-4-amino-pyridine. Tadeusz Talik and Edwin Płazek (Politechnika, Wrocław, Poland). *Roczniki Chem.* 33, 1343-8 (1959) (German summary); cf. *C.A.* 50, 12045f; 53, 18954d. — 4-Amino-2-methoxypyridine was able to be diazotized. 4-Hydroxy-2-methoxypyridine (m. 135°, yield 59.8%), 4-iodo- (b_m 106°, 31.7%), 4-chloro- (m. 26°, b. 177-8°, 30.6%), 4-bromo- (b_m 87°, 26.4%), 4-thiocyanato- (m. 62-3°, 11.2%), and 4-cyano-2-methoxypyridine (I) (m. 95°, 32.4%) were obtained from the diazonium compd. Thus, substitution of a first-order group (no double or semipolar bond) in 2-position made the 4-amino group like a normal aromatic amine. Hydrolysis of I gave 2-hydroxyisonicotinic acid. A. Kreglewski.

5
10/1/53

TALIK, Zofia; TALIK, Tadeusz

On the reaction of 2-halogen and 3-halogen-4-nitropyridine
N-oxides with phosphortrihalogenides. Roczniki chemii 36 no.3:417-423
'62.

1. Katedra Chemii Organicznej I. Politechnika, Wrocław, i
Zakład Chemii Organicznej Katedry Chemii, Wyższa Szkoła
Ekonomiczna, Wrocław.

S/081/62/000/021/022/069
B141/B101

AUTHORS: Talik, Tadeusz, Talik, Zofia

TITLE: Preparation of some derivatives of 4-nitro-pyridine N-oxide

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 21, 1962, 173, abstract
21Zh163 (Roczn. chem., v. 36, no. 3, 1962, 539-544 [Pol.;
summary in Ger.]

TEXT: The action of a mixture of $(CH_3CO)_2O$ and H_2O_2 on pyridine, α -picoline, 2,6-lutidine, 2-chloro-, 2-bromo-, 2-iodo-, 3-chloro-, 3-bromo-, and 3-iodo pyridine (Ia-i), followed by nitration, yields the N-oxides of 4-nitro-I (IIa-i). The structure of IIg, i was confirmed by conversion with aniline to the N-oxide of 3-anilino-4-nitro-pyridine (III). 30 g Ia dissolved in 150 ml $(CH_3CO)_2O$ 150 ml receives an addition of 30% H_2O_2 in portions, the solution is left to stand for 5-6 hrs at 20°C and is then kept for 30 hrs at 60-65°C, the excess of reagents is evaporated in vacuo at 60°C, the residue is dissolved in 50 ml concentrated H_2SO_4 and

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Preparation of some derivatives ...

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added in portions to a mixture of 50 ml concentrated H_2SO_4 , 20 ml 20% fuming sulfuric acid, and 120 ml concentrated HNO_3 (d 1.52); the mixture is kept for 90 min at $100^\circ C$, cooled, and poured onto ice, neutralized to pH = 4-5 with solid $(NH_4)_2CO_3$, whereupon IIA is separated with concentrated NH_4OH , yield 63%, m.p. $162^\circ C$ (from water). Likewise substance II is obtained (yield in %, m.p. in $^\circ C$). b, 76.5, 155; c, 76.5, 156; d (here and below, 150 ml 30% H_2O_2 is added and the mixture heated for further 30 hrs) 69.4, 154; e, 62.5, 145; f, 61.5, 146; g ($C_5H_3ClN_2O_3$) (separated by extraction with $CHCl_3$), 64.5, 115; h, 64.2, 152; i ($C_5H_3IN_2O$) (obtained analogously to IIA), 56.4, 201. From the solution of 1 g IIg, 3 g aniline, and 20 ml alcohol which is boiled for 5 hrs and cooled, III, $C_{11}H_9N_3O_3$, is obtained, yield 0.7 g, m.p. $197-198^\circ C$ (from alcohol). Analogously, III is obtained from 1 g Iii and 5 g aniline in 40 ml alcohol by boiling for 6 hrs, yield 0.6 g. [Abstracter's note: Complete translation.]

Card 2/2

S/081/62/000/021/023/069
B141/B101

AUTHORS: Talik Zofia, Talik Tadeusz

TITLE: Effect of persulfuric acid on some 4-aminopyridine derivatives

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 21, 1962, 173, abstract 21Zh164 (Roczn. chem, v. 36, no. 3, 1962, 545-548 [Pol.; summary in Ger.])

TEXT: When 3-chloro-4-aminopyridine (I), 3-bromo-4-aminopyridine (II), and 2-bromo-4-aminopyridine (III) are brought into reaction with $H_2S_2O_8$, the products are 3-chloro-4-nitro-pyridine (IV), 3-bromo-4-nitro-pyridine (V) and 2-bromo-4-nitro-pyridine (VI) respectively. Under analogous conditions, 2-chloro-, 2-iodo-, and 3-iodo-4-aminopyridine do not react with $H_2S_2O_8$. To 30 ml 20% fuming sulfuric acid 20 ml H_2O_2 is added dropwise under cooling by a mixture of ice and salt, then 2.5 g I dissolved in 7.5 ml concentrated H_2SO_4 is introduced at $0^\circ C$, the mixture is left to stand for 24 hrs at $20^\circ C$, poured onto ice, and neutralized with solid

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Effect of persulfuric acid on ...

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(NH_4)₂CO₃; the precipitate is dissolved in ether, and evaporation of the solvent produced the compound IV, $\text{C}_5\text{H}_7\text{ClS}_2\text{O}_2$, yield 71.2%, m.p. 25-26°C (from benzine). Analogously V, $\text{C}_5\text{H}_7\text{BrS}_2\text{O}_2$, is obtained from 2.5 g II, yield 65.2%, m.p. 66-67°C. When 1 g III is brought into reaction with 3 ml H_2SO_4 and $\text{H}_2\text{S}_2\text{O}_8$ (from 8 ml H_2O_2 and 12 ml 20% fuming sulfuric acid), VI is obtained, yield 76.7%, m.p. 62°C (from alcohol). [Abstracter's note: Complete translation.]

Card 2/2

WIECZOREK, Jan Sylwester; TALIK, Tadeusz

Preparation and some reactions of 3-bromo-4,5-diaminopyridine.
Rocz chemii 36 no.5:967-970 '62.

1. Katedra Chemii Organicznej I, Politechnika, Wroclaw, i
Katedra Chemii, Zaklad Chemii Organicznej, Wyzsza Szkola
Ekonomiczna, Wroclaw.

TALIK, Tadeusz

Certain reactions of 3-halogen-4-nitropyridine N-oxides. *Recs chemii* 36 no.10:1465-1475 '62.

1. Katedra Chemii Organicznej I Politechnika, Wrocław, i Katedra Chemii, Zakład Chemii Organicznej, Wyższa Szkoła Ekonomiczna, Wrocław.

TRIN, TADANU

Relative reactivity of halogens in some 3-halogen derivatives of
pyridine and their N-oxides. Rozz chemii 36 no.11:162-173
1962.

1. Katedra Chemii Organicznej I, Politechnika, Wrocław, i
Katedra Chemii, Zakład Chemii Organicznej, Wyższa Szkoła
Ekonomiczna, Wrocław.

TALIK, Tadeusz

Some reactions of 3-halogen-4-nitropyridines. Roczniki chemii 37
no.1:69-74 1963.

1. Zakład Chemii Organicznej, Wyższa Szkoła Ekonomiczna,
Wrocław.

TALIK, Tadeusz; TALIK, Zofia

Reaction of 2-hydroxy-4-aminopyridine with nitrous acid. Roczniki chemii 37 no.1:75-80 '63.

1. Zaklad Chemii Organicznej, Wyzsza Szkola Ekonomiczna,
Wroclaw.

TALIK, Tadeusz

Reaction of 3-bromo-4-nitropyridine N-oxide with amino acids.
Rocz chemii 37 no.4:495-497 '63.

1. Zakład Chemii Organicznej, Wyższa Szkoła Ekonomiczna, Wrocław.

POL.

Syntheses of pyridine analogs of p-aminosalicylic acid. Tadeusz Talik and Zofia Talik. *Acta Polon. Pharm.* 11, 71-5 (1954) (English summary). By the Kolbe-Schmitt method, modified by Marnette (Ger. 73,279 and 78,708), 2-amino-6-hydroxy-5(?) (I), and 3-amino-5-hydroxy-6(?) pyridinecarboxylic acid (II) have been prepd. I is obtained in 78.5% yield by heating 2-amino-6-hydroxypyridine with anhyd. K_2CO_3 under a CO_2 atm. in an autoclave 3-4 hrs. at about 200° , treating the mixt. with hot H_2O , filtering, and pptg. the product with glacial $AcOH$; it is difficultly sol. in cold H_2O , alc., C_6H_6 , $CHCl_3$, and acetone, and decomp. 105° . By the same procedure (reaction time 7-8 hrs.) 3-amino-5-hydroxypyridine yields II, isolated as the Cu salt, which with H_2S soln. gives 57% free II, m. $204-5^\circ$, sol. in hot H_2O , insol. in alc. and C_6H_6 . Both acids are inactive against tubercle bacilli. Michael Dymally

TALIK, Zofia; PLAZEK, Edwin

Preparation of chlorides of 2- and 4-pyridino sulfonic acids and of 2- and 4-pyridonosulfonamides. Acta Poloniae pharm. 12 no.1: 5-12 1955.

1. I Katedra Chemii Organicznej Politechniki Wroclawskiej. Kierownik: prof. dr E.Plazek.

(PIPERIDINES, preparation of
chloropiperidinesulfonic acids & chloropiperidinesulfonamides)
(SULFONAMIDES, preparation of,
chloropiperidinesulfonamides)

TALIK Z.

✓ Synthesis of pyridinesulfohydroxamic acids. Z. Talik and T. Talia (Polytech., Wrocław, Poland). *Acta Polon. Pharm.* 12, 213-22 (1955) (English summary).—2, 3, and 4-Pyridinesulfohydroxamic acids (I), (II), and (III), resp., prepd. by the reaction of the corresponding sulfonyl chlorides with hydroxylamine showed only a small tuberculostatic activity in experiments *in vitro*. Na (2 g.) is dissolved in 30 ml. abs. EtOH and added below 40° to 7 g. NH₄OH.HCl (IV) in 5 ml. water. To the filtered soln., 2-pyridinesulfonyl chloride [obtained from 4 g. mercaptopyridine (cf. *ibid.* 5-12)] is added in portions below 30° and the mixt. kept 10 min., the EtOH is distd. *in vacuo*, 5 ml. water added, the soln. heated with C at 90° and filtered, and the ppt. crystd. from water to give I, m. 123-30° (decomp.). II is obtained by adding 13 g. IV in 10 ml. of water to a soln. of 4.25 g. Na in 60 ml. abs. EtOH at 40°, filtering off the NaCl, adding 3-pyridinesulfonyl chloride to the filtrate, filtering off IV, evapg. the filtrate and recrystg. the residue from water; II m. 149-51° (decompn.). III is obtained similarly (no m.p. is reported).

R. Dowbenko

1956, 3; 1957, 3.

"Nitration of 2-chloro-4-aminopyridine."

p. 1170 (Roczniki Chemii) Vol. 30, no. 4, 1956
Warsaw, Poland

SO: Monthly Index of East European Accessions (LEA) LC. Vol. 7, no. 4,
April 1958

Synthesis of certain derivatives of thiocyanooacetic acid hydrazide. Zofia Talik and Edwin Plažek (Politechnika, Wrocław, Poland). *Roczniki Chem.* 33, 379-85 (1959) (German summary). Attempts to prep. $\text{NCSC}_2\text{H}_4\text{CONH}\cdot\text{NH}_2$ (I) were unsuccessful, but 3 stable hydrazones $\text{NCSC}_2\text{H}_4\text{CONHN}\cdot\text{CHR}$ (II), of I were obtained as described below. Into 3.8 g. $\text{PhCH}\cdot\text{NNH}_2$ in 10 ml. $\text{C}_2\text{H}_5\text{N}$ at -30° was dropped 3.4 g. ClCH_2COCl in 20 ml. Et_2O , the mixt. then poured into 400 ml. H_2O , and the solid filtered off and recrystd., from $\text{H}_2\text{O}\cdot\text{EtOH}$ to yield 3.4 g. $\text{ClCH}_2\text{CONHN}\cdot\text{CHR}$ (III) (R = Ph), m. 164° . Similarly were obtained the analogs III (R = *m*- $\text{O}_2\text{NC}_6\text{H}_4$), m. 207° , and III (R = *o*- HOC_6H_4), m. $198-9^\circ$. III with KSCN in Me_2CO gave II (R = Ph), m. 251° (alc.), II (R = *m*- $\text{O}_2\text{NC}_6\text{H}_4$), m. 278° (AcOH); and II (R = *o*- HOC_6H_4), m. 295° (decompn.) ($\text{C}_6\text{H}_5\text{N}$). IIa (R = Ph) and IIb (R = *m*- $\text{O}_2\text{NC}_6\text{H}_4$) showed strong tuberculostatic action *in vitro*. Double hydrazides of chloro-, m. 161° , and thiocyanooacetic acid, decomp. 200° , were also prepd. A. Kręglewski

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2 g. (NB)

g. g.

TALIK, Z.; PLAZEK, E.

Investigations on 2-chloro-3,5-dinitropyridine. I. Exchange reactions of the halogen atoms. II. Experiments comparing the movability of the halogen atom. III. Possibilities of using 3,5-dinitro-2-chloropyridine in investigations on protein adsorption and amino acids. *Bul chim PAN* 8 no.5:219-230 '60. (EEAI 10:9/10)

1. Katedra Chemii Organicznej I., Politechnika, Wrocław. Presented by T. Urbanski.

(Chloro-dinitropyridine) (Halogens)
(Amino acids) (Proteins)

Distr: 4E3d

✓ 2-Chloro-3,5-dinitropyridine. Zofia Talik and Edwin
Plaček (Tech. School, Wrocław, Poland). *Roczniki Chem.*
34, 185-76 (1960).—Several expts. concerning the unusually
high mobility of the Cl atom in 2-chloro-3,5-dinitropyridine
were carried out, in particular the substitution of the former
by OH, OMe, OBt, OCH₂CH₂O, OPh, SPh, SH, —SS—,
—S—, SCN, and —CN groups. Some expts. were carried
out for this purpose on 2-bromo-3,5-dinitropyridine. The
high mobility of the halogen atom in these compounds was
confirmed. M. Trešnár

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2-jag(NB)(may)
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TALIK, Zofia

Research on 2-chloro-3,t-dinitropyridine. II. Reactions with animes.
Rocz chemii 34 no.2:465-474 '60. (EEAI 10:1)

1. Katedra Chemii Organicznej I Politechniki, Warszawa.
(Chlorodinitropyridine) (Amines)

TALIK, Zofia

Investigations on 2-chloro-3,5-dinitropyridine. III. The relative reactivity of halogen. Roczniki chemii 34 no.3/4:917-924 '60.

(EEAI 10:3)

1. Katedra Chemii Organicznej I Politechniki, Wrocław.
(Halogens) (Chlorodinitropyridine)

S/081/62/000/013/015/054
B158/B144

100-10
AUTHOR:

Talik, Z.

TITLE:

Substitution of a halogen and a nitro-group in N-oxides of 2-halogen-4-nitropyridine

PERIODICAL:

Referativnyy zhurnal. Khimiya, no. 13, 1962, 245, abstract 132h217 (Bull. Acad. polon. sci. Ser. sci. chim., v. 9, no. 9, 1961, 561-565)

TEXT: For the study of the mobility of a halogen and the NO₂ group in N-oxides of 2-halogen-4-nitropyridine (I 4-nitropyridine), the latter were reacted with NaOCH₃ and NaOC₂H₅ at 20°C. the NO₂ group being easily substituted on the alkoxyl; the halogen was not very active under these conditions. In a reaction of 1 mole of the starting substance with 2 moles of NaOCH₃ under severe conditions (boiling), the halogen may be replaced by an alkoxyl. In a reaction with Fe(OH)₂ or PCl₃ (heating), the N-oxides of 2-halogen-4-alkoxy-pyridines lose the O atom. Under the

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effect of $\text{NH}(\text{CH}_3)_2$ or $\text{NH}(\text{C}_2\text{H}_5)_2$, N-oxides of 2-halogen-I are easily converted to N-oxides of dialkylamino-I, which by reacting with PCl_3 in CHCl_3 are converted to 2-dialkylamino-I; the latter are converted to 2-dialkylamino-4-aminopyridines (II 4-aminopyridine) by strong reducing agents. When N-oxides of 2-halogen-I are reacted with $\text{NH}_2\text{NH}_2 \cdot \text{H}_2\text{O}$ in alcohol, various mixtures are formed; only in one case is it possible to separate the N-oxide of 2-iodine-II. By the methods described, the

following were obtained (product obtained, yield %, m. p. in °C, m. p. in °C of picrate (supplements in brackets) are given): N-oxide of 2-chloro-4-methoxy pyridine (III 4-methoxy pyridine), 84.1, 82 (from benzene), 141; N-oxide of 2-bromo-III, 85.4, 55, (from benzene), 145; N-oxide of 2-iodo-III, 88.6, 89 (from water), 142; 2-chloro-III, 83.4 (b. p. 229-230°C), -, 168; 2-bromo-III, 74.6 (b. p. 121°C/10 mm), -, 115; 2-iodo-III, 74.6, 35 (from benzene), 154; N-oxide of 2,4-dimethoxy pyridine, 72.1, 85 (from benzene), -; 2,4-dimethoxy pyridine, 62.6 (b. p. 200-201°C), -, 159; 2-chloro-4-ethoxy pyridine, 66.4, 55-57 (from Card 2/4

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B158/B144

Substitution of a halogen and a ...

benzine), 159; 2-bromo-4-ethoxy pyridine, 49.3, 38 (from benzine), 115; 2-iodo-4-ethoxy pyridine, 69.2, (b. p. $145^{\circ}\text{C}/11\text{ mm}$) -, 133; N-oxide of 2-dimethylamino-I, 74.8, 126 (from benzine-benzene), -; N-oxide of 2-diethylamino-I, 62.3, 90 (from benzene-benzine), -; 2-dimethylamino-I, 61.7, 90 (from benzine-benzene), -; 2-diethylamino-I, 75.8, 33 (from benzine), -; 2-dimethylamino-II, 62, 151 (from water, 216 (various); 2-diethylamino-II, 76.7, 117 (from aqueous alcohol), 172; N-oxide of 2-iodo-II, 40.6, 110 (various; from water), 189. The solubilities of the enumerated compounds in water, alcohol, C_6H_6 and CHCl_3 are given.

N-oxides of 2-halogen-III are unstable in air, at 0°C they can be preserved for a long period, at 20°C they rapidly decompose, and at 100°C they ignite; 2-halogen-4-alkoxy pyridines are completely stable. Results are given of a quantitative study of the mobility of the halogen (determined by Volhard's method) and of the NO_2 group (conditionally, from the amount of NaOCH_3 consumed) in reactions with NaOCH_3 at 20°C and with boiling in alcohol and with $\text{NH}(\text{C}_2\text{H}_5)_2$ (with boiling in alcohol); these

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Substitution of a halogen and a ...

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show that the 4-NO₂ group is considerably more reactive towards NaOCH₃ than 2-halogen in the pyridine ring. Of the halogens, in relation to NaOCH₃, the most mobile is Cl, the least mobile I; a difference in the mobility of Cl, Br and I is observed (at a relatively high reactivity) also with respect to NH(C₂H₅)₂; the most mobile is Br, the least mobile I.
6 references. [Abstracter's note: Complete translation.]

Card 4/4

TALIK, Z.

Substitution reactions of halogens and the nitro group in 2-halogen-4-nitropyridines. Bul chim PAN 9 no.9:567-569 '61.

1. Katedra Chemii Organicznej I., Politechnika, Wroclaw. Presented by T. Urbanski.

TALIK, Z.

The relative mobility of the halogen atoms in 2-halogenpyridines and N-oxides of the 2-halogenpyridines. Bul chim PAN 9 no.9:571-574 '61.

1. Katedra Chemii Organicznej, Politechnika, Wroclaw. Presented by T. Urbanski.

TALIK, Zofia; TALIK, Tadeusz

On the reaction of 2-halogen and 3-halogen-4-nitropyridine
N-oxides with phosphortrihalogenides. Roczniki chemii 36 no.3:417-423
'62.

1. Katedra Chemii Organicznej I. Politechnika, Wrocław, i
Zakład Chemii Organicznej Katedry Chemii, Wyższa Szkoła
Ekonomiczna, Wrocław.

S/081/62/000/021/022/069
B141/B101

AUTHORS: Talik, Tadeusz, Talik, Zofia

TITLE: Preparation of some derivatives of 4-nitro-pyridine N-oxide

PERIODICAL: Referativnyy zhurnal. Zhimiya, no. 21, 1962, 173, abstract
21Zh163 (Roczn. chem., v. 36, no. 3, 1962, 539-544 [Pol.;
summary in Ger.])

TEXT: The action of a mixture of $(CH_3CO)_2O$ and H_2O_2 on pyridine, α -picoline, 2,6-lutidine, 2-chloro-, 2-bromo-, 2-iodo-, 3-chloro-, 3-bromo-, and 3-iodo pyridine (Ia-i), followed by nitration, yields the N-oxides of 4-nitro-I (IIa-i). The structure of IIg, i was confirmed by conversion with aniline to the N-oxide of 3-anilino-4-nitro-pyridine (III). 30 g Ia dissolved in 150 ml $(CH_3CO)_2O$ 150 ml receives an addition of 30% H_2O_2 in portions, the solution is left to stand for 5-6 hrs at $20^\circ C$ and is then kept for 30 hrs at $60-65^\circ C$, the excess of reagents is evaporated in vacuo at $60^\circ C$, the residue is dissolved in 50 ml concentrated H_2SO_4 and

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Preparation of some derivatives ...

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added in portions to a mixture of 50 ml concentrated H_2SO_4 , 20 ml 20% fuming sulfuric acid, and 120 ml concentrated HNO_3 (d 1.52); the mixture is kept for 90 min at $100^\circ C$, cooled, and poured onto ice, neutralized to pH = 4-5 with solid $(NH_4)_2CO_3$, whereupon Ila is separated with concentrated NH_4OH , yield 63%, m.p. $162^\circ C$ (from water). Likewise substance II is obtained (yield in %, m.p. in $^\circ C$). b, 75.5, 155; c, 76.5, 156; d (here and below, 150 ml 30% H_2O_2 is added and the mixture heated for further 30 hrs) 69.4, 154; e, 62.5, 145; f, 61.5, 148; g ($C_5H_3ClN_2O_3$) (separated by extraction with $CHCl_3$), 64.5, 115; h, 64.2, 152; i ($C_5H_3IN_2O$) (obtained analogously to Ila), 56.4, 201. From the solution of 1 g IIg, 3 g aniline, and 20 ml alcohol which is boiled for 3 hrs and cooled, III, $C_{11}H_9N_3O_3$, is obtained, yield 0.7 g, m.p. $197-198^\circ C$ (from alcohol). Analogously, III is obtained from 1 g Ili and 3 g aniline in 40 ml alcohol by boiling for 6 hrs, yield 0.6 g. [Abstracter's note: Complete translation.]

Card 2/2

S/081/62/000/021/023/069
B141/B101

AUTHORS: Talik Zofia, Talik Tadeusz

TITLE: Effect of persulfuric acid on some 4-aminopyridine derivatives

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 21, 1962, 173, abstract 21Zh164 (Roczn. chem, v. 36, no. 3, 1962, 545-548 [Pol.; summary in Ger.])

TEXT: When 5-chloro-4-aminopyridine (I), 3-bromo-4-aminopyridine (II), and 2-bromo-4-aminopyridine (III) are brought into reaction with $H_2S_2O_8$, the products are 5-chloro-4-nitro-pyridine (IV), 3-bromo-4-nitro-pyridine (V) and 2-bromo-4-nitro-pyridine (VI) respectively. Under analogous conditions, 2-chloro-, 2-iodo-, and 5-iodo-4-aminopyridine do not react with $H_2S_2O_8$. To 30 ml 20% fuming sulfuric acid 20 ml H_2O_2 is added dropwise under cooling by a mixture of ice and salt, then 2.5 g I dissolved in 7.5 ml concentrated H_2SO_4 is introduced at $0^\circ C$, the mixture is left to stand for 24 hrs at $20^\circ C$, poured onto ice, and neutralized with solid

Card 1/2

Effect of persulfuric acid on ...

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$(\text{NH}_4)_2\text{CO}_3$; the precipitate is dissolved in ether, and evaporation of the solvent produced the compound IV, $\text{C}_5\text{H}_4\text{ClN}_2\text{O}_2$, yield 71.2%, m.p. 25-26°C (from benzene). Analogously V, $\text{C}_5\text{H}_3\text{BrN}_2\text{O}_2$, is obtained from 2.5 g II, yield 85.2%, m.p. 66-67°C. When 1 g III is brought into reaction with 5 ml H_2SO_4 and $\text{H}_2\text{S}_2\text{O}_8$ (from 8 ml H_2O_2 and 12 ml 20% fuming sulfuric acid), VI is obtained, yield 76.7%, m.p. 62°C (from alcohol). [Abstracter's note: Complete translation.]

Card 2/2

TALIK, Zofia

Research on the relative mobility of halogen atoms in 2-halogen
pyridines and 2-halogen pyridine-N-oxides. Roczniki chemii 36
no.7/8:1183-1189 '62.

1. Katedra Chemii Organicznej I, Politechnika, Wrocław.

TALIK, Zofia

Certain reactions of 2-halogen-4-nitropyridine. Roczniki chemii 36
no.9:1313-1320 '62.

1. Katedra Chemii Organicznej I, Politechnika, Wrocław.

TALIK, Tadeusz; TALIK, Zofia

Reaction of 2-hydroxy-4-aminopyridine with nitrous acid. Pocz
chemii 37 no.1:75-80 '63.

1. Zaklad Chemii Organicznej, Wyzsza Szkola Ekonomiczna,
Wroclaw.

KHAUG, N.A. [Kaug, N.]; kand.med.nauk (Tallin, ul. Roopa, d.19, kv.7);
TALIKHARM, A.A. [Taliharm, A.]

"Double block" following the use of lystenone. Vest. khir. 91
no.7:66-67 JI'69 (MIRA 16:12)

I. I. Instituta eksperimental'noy i klinicheskoy meditsiny
AN Estonskoy SSR (dir.- doktor med. nauk P.A.Bogovskiy) i
Tallinskoy gorodskoy tuberkuleznoy bol'nitsy (glavnyy vrach
L.N.Os'minina).

TALITOV, M.A.; BAKHOLDIN, S.V.; SERAVKIN, K.A.

Conveyors with a bushing-roller chain. Perm. i spirt. prom. 30
no.1:32-33 '64. (MIRA 17:11)

1. Ryazanskiy likero-vodochnyy zavod.

TALIKOV, H.A.

Pathogenesis of pathological processes in the kidneys in pulmonary tuberculosis. Sbor. trud. Uz. nauch.-issl. tub. inst. 3:186-190
'57. (MIRA 14:5)

(TUBERCULOUS)

(KIDNEYS--DISEASES)

IRMUKHAMEDOV, A.A.; TALIKOV, N.A.

Renal functional and morphological changes in liver cirrhosis.
Med. zhur. Uzb. no.5:40-43 My'63 (MIRA 17:1)

1. Iz kafedry terapii (zav. - prof. A.S. Mushkin) i kafedry
patologicheskoy anatomii (zav. - prof. R.I. Denilova) Tash-
kentского Instituta usovershenstvovaniya vrachev..

YANBAYEV, T.A.; TALIMOV, N.A.

Clinical anatomical comparisons of renal changes in suppurative processes in the body. Khirurgiya 39 no.8:98-100 Ag '63.
(MIRA 17:6)

1. Iz khirurgicheskogo otdeleniya Tashkentской klinicheskoy bol'nitsy nestoizhnoy pomoshchi (nauchnyy rukovoditel' - prof. S.A. Masumov; glavnyy vrach - zasluzhennyy vrach Uzbekskoy SSR T.Sh. Alimov).

TALIKOWA, Zofia

Chemical Abst.
Vol. 48 No. 3
Feb. 10, 1954
Organic Chemistry

② Chem
Chemistry of pyridine 1-oxide. Zofia Talikowa (Higher
Polytech. School, Wrocław, Poland). *Wiedomości Chem.* 7,
161-88 (1953).—The following topics are reviewed: Substi-
tution reactions of pyridine 1-oxide (I), chem. properties of
substituted I, and reduction of the nitro deriv. of I with and
without the cleavage of N—C bond. 35 references.
Adam Sporyński

8-37-51
JJP

CICHOCKI, T.; RUTA, R.; TALIKOWSKA, H.

The distribution of some hydrolytic enzymes in the nephridium of the earthworm (*Lumbricus terrestris* L.). *Folia biol* 11 no.1: 69-83 '63.

1. Department of Histology, Medical Academy, Krakow. Head: J.Ackermann, Ph.D.

4

77-1-702501, 21.1.56
GOLDSCHMIED, Aleksander; RAKAJSKA, Zofia; TALIKOWSKI, Wacław; BODZINSKA, Irena

Effect of intra-oral bile on the course of infectious jaundice. Polski
tygod. lek. 12 no.34:1319-1320 19 Aug 57.

1. (Z Oddziału zółtaczek Kliniki Chorob Zakaźnych A.M. w Łodzi; ówczesny
kierownik Kliniki: prof. dr A. Goldschmied). Adres: Warszawa, ul.
Kasprzaka 17; III Zakład Chorob Wewn. Instytutu Dosk. i Specj. Kadr Lek.
(BILE, therapeuticuse,
hepatitis, infect., intra-oral admin. (Pol))
(HEPATITIS, INFECTIOUS, therapy,
bile, intraoral admin. (Pol))

TALIMAA, R. Yu.

Data from a study of specific and nonspecific reactivity in patients with tuberculosis of the lungs during combined treatment with antibacterial preparations and tuberculin. Probl. tub. 38 no. 7:53-59 '60. (MIRA 14:1)

1. Iz Instituta tuberkuleza (dir. - chlen-korrespondent AMN SSSR N.A. Shmelev, nauchnyy rukovoditel' - doktor med. nauk F.L. Elinson) AMN SSSR.

(TUBERCULOSIS)

TALIMAA, R. Yu., Cand. Medic. Sci. (diss) "Changes of Allergical Reactivity in Patients with Tuberculosis of Lungs with Treatment Anti-bacterial Preparations and Tuberculin," Moscow, 1961, 23 pp. (Acad. Med. Sci. USSR) (KL Supp 12-61, 289).

TALIMAS R. (med. m. kand.

An automatic spiograph without the water spirometer. Sveik.
Apsaug. no. 3:39-43 '64.

1. Lietuvos respublikinis tuberkuliozes mokslinio tyrimo
institutas.

TALIMAA R.^{yu} med.m.kand.

An automatic spiograph from a common water spirometer.
Sveik. apsaug. 9 no.3:39-43 Mr'64

1. Tuberkuliozes m.t. institutas.

*

TALIMAY I. I. I.

Identification of atypical dysentery bacteria. Zhur. mikrobiol.
epid. i immun. 28 no. 4: 95-97 and 157. (KLM 10-10)

1. In Tartusko gosudarstvennogo universiteta.

(SHIGELLA DYSENTERIAE)

Identification of atypical strains by biochem. &
immunol. characteristics.

TALEMEYSTER, E.T.; RAUDSIK, T.A.

Study of the pathogenic properties of some freshly isolated
enteropathogenic Escherichia coli of various serological types.
Zhur. mikrobiol., epid. i immun. 42 no.7:21-24 J1 '65.

(MIRA 18:11)

1. Tartuskiy gosudarstvennyy universitet.

~~TOP SECRET~~
~~SECRET~~
KUROLSKY, L. I., and M. P. WELCHOVA.

Vliianie zakruchivaniia lopasti na aerodinamicheskie kharakteristiki avtozaira. Moskva, 1939. 34 p., diagrs. (TSAGI. Trudy, no. 396)

Bibliography: p. 34.

Title tr.: Effect of blade twist on the aerodynamic characteristics of an autogyro.

JA911.X65 no. 396

CC: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955.

TALIN, A.A.

Continuous action horizontal sterilizers. Kons. i ov. prom. 14
no.10:23-24 0 '59. (MIRA 12:12)

1.Izmail'skiy konservnyy kombinat.
(Sterilization)

TALIN, A. A. ; SLYUSARENKO, N. A.

Production of grape juice at the Izmayl Cannery. Kons. i ov. prom.
15 no.10:6-8 0 '60. (MIRA 13:10)

1. Izmail'skiy konservnyy kombinat.
(Izmayl--Grape juice)

TALIN, A.O.

Aseptic preservation of food in the United States. Khar.prom.
no.2:91-94 Ap-Je '62. (MIRA 15:9)

1. Izmail'skiy konservnyy kombinat.
(United States—Canning and preserving)

ELTYAGINA, A. I.; VORONKOVA, O. I.; TALINSKAYA, A. F.; USHAKOVA, S. P.

Studying outbreaks of Botkin's disease in children's institutions.
Sov.med. 19 no.12:55-59 D '55. (MLR 10:9)

1. Iz Instituta virusologii AN SSSR i Moskovskogo oblastnogo
nauchno-issledovatel'skogo klinicheskogo instituta imeni M.F.
Vladimirovskogo
(HEPATITIS, INFECTIOUS)

ITSELIS, F. G.; YAMPOL'SKAYA, E. I.; ZALANZON, Ye. S.; MIL'NER, B. I.;
ROZENBAUM, G. I.; TALINSKAYA, A. F.

Focus of mixed diseases due to poliomyelitis and Coxsackie
[viruses] in a children's collective. *Pediatrics* no.6:15-19
'62. (MIRA 15:6)

1. Iz sanitarno-epidemiologicheskoy stantsii Moskvyy i Instituta
pediatrii Ministerstva zdravookhraneniya RSFSR.

(POLIOMYELITIS) (COXSACKIE VIRUSES)

GRINEVICH, A.G.; TALPOV, B.T.

Sensitivity of *Streptococcus diaacetilactis* cultures to gamma
rays. Uzb. biol. zhur. 7 no.4:62-67 1965 (MIRA 11:84)

1. Institut botaniki AN UzSSR.

KARGIN, V.A.; SOGOLOVA, T.I.; TALIPCV, G.Sh.

Plasticization of crystalline polymers. Part 1: Plasticization
of isotactic polystyrene and polyethylene terephthalate.
Vysokom.soed. 1 no.11:1670-1677 N '59. (MIRA 13:5)

1. Fiziko-khimicheskiy institut imeni L.Ya.Karpova.
(Styrene) (Terephthalic acid)

S/020/62/142/003/021/027
3101/B110

AUTHORS: Kargin, V. A., Academician, Sogolova, T. I., and Talipov, G. Sh.

TITLE: Structure formation in crystalline polystyrene

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 142, no. 3, 1962, 627-628

TEXT: The authors studied the formation of supermolecular structures in crystalline, isotactic polystyrene. The sample was fused onto an object glass, brought to test temperature (120, 145, 175°C) in a thermostat, and the structure formation was investigated and photographed in polarized light with 200 - 600fold magnification by means of an MIM-8 (MIN-8) microscope. The structure formation was found to be a complicated process, not ceasing with the formation of spherulites. Spherulites both grow and aggregate. At high temperature and prolonged crystallization, the number of growth centers is small, and regular spherulites are formed without disturbances. At low temperature, the growing rate is low but the number of centers is large. In this case, aggregation to bands takes place (Length 25 - 500μ, width 1 - 120μ). Spherulites united to bands grow only

Carl 1/2

Structure formation in crystalline...

S/020/02/142 003/021/027
B101/B110

in width (normally also in thickness) until laminae are formed and the growth ceases. The bands in one lamina are ordered, but their position in superimposed laminae does not coincide. The time of crystallization has the same effect on the formation of supermolecular structure as temperature has. Thus, systems of a desired structure can be produced. No molecules or molecule packages but spherulites of the order of magnitude of colloidal particles act as structural units in polymer systems. A similarity with the formation of gels and jellies is assumed. There are 4 references: 3 Soviet and 1 non-Soviet. The reference to the English-language publication reads as follows: P. Dannusso, G. Moraglio, J. Polymer Sci., 21, 161 (1957).

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physico-chemical Institute imeni L. Ya. Karpov)

SUBMITTED: October 11, 1961

Part 2/2

S/020/62/142/004/015/022
B101/B110

15.8100
AUTHORS: Kargin, V.A., Academician, Sogolova, T. I. and Talisov, I. Sh.
TITLE: Structure formation in plasticized crystalline polystyrene
PERIODICAL: Akademiya nauk SSSR. Doklady, v. 142, no. 4, 1962, 844-848.

TEXT: Investigations of the supermolecular structure of nonplasticized polystyrene (DAN, 142, no. 3 (1962)) showed that secondary structures, bands or lamellas, composed of spherulites, developed between 110 and 215°C. The effect of plasticizers on structure formation and mechanical properties of polystyrene (PSt) was now investigated by the same method at 120, 145 and 175°C. The following data were found for the spherulite dimensions (in microns):

| Duration of crystallization, min | Initial PSt | Concentration of plasticizer, % by volume | | | | | | | |
|----------------------------------|-------------|---|-----|-----|-----|-----|----|-----|-----|
| | | A | | B | | C | | | |
| | | 8 | 20 | 15 | 25 | 12 | 18 | 30 | 40 |
| 10 | 4 | 13 | 11 | 10 | 15 | 15 | - | 10 | 10 |
| 30 | 8 | 60 | 55 | 35 | 35 | 50 | 50 | 35 | 35 |
| 60 | 17 | 110 | 92 | 70 | 67 | 70 | - | 70 | 70 |
| 150 | 40 | 300 | 230 | 260 | 190 | 220 | - | 170 | 170 |

Card 1/2

Structure formation in..

S/020/12/142/001/05/020
B:01/B:10

A = cetyl chloride; B = dimethyl phthalate; C = dibutyl sebacate. Thus an increase in size of the spherulites occurred for all plasticizers. The formation of bands or lamellas, especially above 120°C, being suppressed. The effect of plasticizers was less marked at higher temperatures (175 - 215°C) since under such conditions the spherulites are already growing even in nonplasticized PST. The strength of plasticized PST increased with increasing plasticizer content (Fig. 4). X-ray pictures of initial and plasticized PST showed only slight differences. Accordingly the effect of plasticizer does not consist in a change of the primary crystalline structure (of the spherulite) of the polymer but in a suppression of secondary-structure formation. This also causes a reduction in strength which was investigated at a temperature 25°C higher than the vitrification temperature. There are 4 figures, 1 table, and 1 Soviet reference.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physico-chemical Institute imeni L. Ya. Karpov)

SUBMITTED: October 26, 1961

Card 2/2

S/0190/63/005/012/1809/1816

ACCESSION NR: APL007979

AUTHORS: Kargin, V. A.; Sogolova, T. I.; Talipov, G. Sh.

TITLE: Supermolecular structure of plasticized and nonplasticized crystalline polystyrene

SOURCE: Vyssokomolekulyarnyye soyedineniya, v. 5, no. 12, 1963, 1809-1816

TOPIC TAGS: polymer, polystyrene crystalline, polystyrene, plasticized crystalline polystyrene, plasticization, plasticizer, secondary structure, globule, spherulite, bundle, rod, supermolecule structure formation, plasticized polystyrene mechanical property, polymer mechanical property, phthalic acid dimethyl ester, cetyl chloride, supermolecular structure

ABSTRACT: The supermolecular structure of plasticized (dimethyl-phthalate and cetyl chloride plasticizer) and nonplasticized crystalline polystyrene has been studied in temperature intervals from 110-215°C and at crystallization durations of 10 to 150 minutes. The structure-forming process was observed under a polarizing microscope MIN-8 with a 200-600 magnification. A new type of structuralization was discovered, in which spherulites serve as initial structure units, commensurable

Card 1/2

ACCESSION NR: APL007979

in dimension with the colloidal particle size. It was found that the plasticizer has a substantial effect on the nature and dimensions of crystalline polymer secondary structure, and a definite correlation was established between plasticized polymer macrostructure and its mechanical properties. Orig. art. has: 16 micro-photographs and 1 chart.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physicochemical Institute)

SUBMITTED: 24Apr62

DATE ACQ: 20Jan64

ENCL: 00

SUB CODE: MA

NO REF SOV: 004

OTHER: 001

Card 2/2

1954

1. Institut tehniki SSSR

TALIPOV, M.A.; SHVALITSKIY, Ye.N.

Conditions of the Turgon Hydroelectric Power Station from the
point of view of engineering geology. Izv. Ak. Nauk. Ser. Est.
1.6.1. Nauk. 1 no.6:143-148 60. (1960) 148
(Kirghizistan Hydroelectric power stations)

SUKHOVA, M.N.; ZAIROV, K.S.; GVOZDEVA, I.V.; ANDREYEVA, A.I.; NURULLAYEV, D.Kh.; TALIQOV, M.Z.; MOSUNOV, V.B.; STOROZHEVA, Ye.M.; MSONOVA, A.M.; SHAMIRZAYEV, N.Yu.; AKMURZAYEV, T.A.

Fly control and its organization in Uzbekistan. Med.zhur.Uzb.
no.3:3-14 Mr '62. (MIRA 15:12)

1. Iz Tsentral'nogo nauchno-issledovatel'skogo dezinfektsionnogo instituta Ministerstva zdravookhraneniya SSSR (dir. - prof. V.I.Vashkov) i sanitarno-epidemiologicheskoy organizatsii Uzbekistana (glavnyy gosudarstvennyy sanitarnyy inspektor-kand.med.nauk K.S.Zairov).

(UZBEKISTAN--FLIES--EXTERMINATION)

KHAMRABAYEV, I.Kh.; TALIPOV, R.M.

Some results of biogeochemical (geobotanical) research in western
Uzbekistan. Uzb. geol. zhur. no.5:3-11 '60. (MIRA 13:11)

1. Institut geologii AN UzSSR.
(Uzbekistan—Ore deposits) (Phytogeography)

TALIPOV, R.M.

Characteristics of the concentration of nonferrous metals in the soils and plants of the Sary-Gesku and Men-Kalach regions (Uzbekistan). Geokhimiia no.5:457-460 My '64. (MIRA 18:7)

1. Kh.M.Abdullaev Institute of Geology and Geophysics, Academy of Sciences, Uzbek Soviet Socialist Republic.

TALIPOV, S.

Waters of the petroleum and gas fields of the Tajik depression.
Izv. vys. nauch. zav.: nefte' i gaz 6 no. 11-12 '63. (MIRA 17:9)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti
im. akad. I. M. Gubkina.

TALIFOV, E.; SHIROKOV, V.Ya.

Waters and brines of the Mesozoic - Cenozoic sediments of the
Tajik Depression in connection with the oil and gas potential.
Neftegaz.geol. i geofiz. no.12:12-14.

(MIRA 28.3)

1. Moskovskiy ordena Trudovogo Krasa. Geol. i neftekhimicheskoy i gazovoy promyshlennosti in. akad. Gubkin.

TALIPOV, S.; VAGIN, S.B.; SHUGRIN, V.P.

Gas content characteristics of waters of the Mesocenozoic sediments
in the southern Tajik depression. Izv. ys. ucheb. zav.; neft' i
gaz. 7 no.10:15-18 '64. (MIRA 18:2)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti
im. akad. I.M. Gubkina.

TALIFOV, S.

Bromine and iodine content of underground waters in the Mubarek group of oil and gas fields. Dokl. AN Uz. SSR 21 no.9:44-46 '64.

(MIRA 19:1)

1. Institut geologii i razrabotki neftyanykh i gazovykh mestorozhdeniy Gosudarstvennogo geologicheskogo komiteta SSSR.

Use of fluorine compounds in chemical analysis. I. TANANAKV and S. TALIROV. (Bull. Acad. Sci. U.R.S.S., 1938, 84, Chim., 547-553).—For the separation of Be from Ca and Mg a slight excess of NaF is sufficient; for separation from Al and Fe, 0.5 and 1.5 g. per l., respectively, is necessary.

L. J. J.

| PROCEDURES AND PROPERTIES INDEX | |
|---------------------------------|--|
| 1 | Determination of aluminum in the form of cryolite. |
| 2 | iv. Znanovskiy and Sh. Talipov. Zvezdskaya Lab. 8, 23 7 |
| 3 | (1939). Al was detd. both as Na_2AlF_6 and K_2AlF_6 . In |
| 4 | detg. Al as Na_2AlF_6 a definite amt. of 3.4% NaF soln. |
| 5 | sufficient to ppt. all the Al is added to the AlCl_3 and after |
| 6 | 1-2 hrs. the contents are centrifuged. The clear soln. is |
| 7 | shaken with 0.5% NaF soln. and centrifuged. After 2-3 |
| 8 | such washings the ppt. is washed twice with 50% alc. |
| 9 | until free of NaF and then dried at 120-130° to const. |
| 10 | wt. In order to effect complete pptn. the ratio of NaF/ |
| 11 | AlCl_3 should be at least 6.5-7. The variations between |
| 12 | the calcd. and found Na_2AlF_6 ranged from 0.0006 to 0.0020 |
| 13 | g. In expts. in which the solns. were filtered instead of |
| 14 | centrifuged the differences between the calcd. and found |
| 15 | Na_2AlF_6 varied from 0.0004 to 0.0028 g. In these expts. |
| 16 | the ppt. and filter paper are ignited in a Pt crucible over a |
| 17 | small flame without melting the ppt. In adding AlCl_3 |
| 18 | to NaF it was found that if the ratio NaF/ AlCl_3 is 10 the |
| 19 | ppt. consists practically entirely of Na_2AlF_6 . This condi- |
| 20 | tion prevailed up to a NaF/ AlCl_3 ratio of 40. In detg. 7 |
| 21 | the Al as K_2AlF_6 the method of adding KF to the AlCl_3 |
| 22 | was not applicable because the results obtained were too |
| 23 | low. In adding AlCl_3 to the KF good results were obtained |
| 24 | with a KF/ AlCl_3 ratio of 12 and higher. The differences |
| 25 | between the Al_2O_3 taken and found experimentally varied |
| 26 | from 0.0001 to 0.0007 g. In detg. Al in the presence of |
| 27 | Be the following procedure was adopted: A mixt. of Al |
| 28 | and Be chlorides is added to a NaF soln. dild. to 75-80 |
| 29 | ml., the soln. is thoroughly mixed and after 1-2 hrs. the |
| 30 | soln. is carefully siphoned off and the ppt. together with |
| 31 | part of the soln. is centrifuged, thrice washed with 0.5% |
| 32 | NaF soln. and then with aq. alc. (1:1). The ppt. is dried |
| 33 | and weighed as Na_2AlF_6 . The max. difference between |
| 34 | the exptl. and calcd. Na_2AlF_6 was 0.0050 g. H. Z. K. |

Solubility of the double fluorides of aluminum and of the basic metals. I. Lamanary and Sh. Talipov. *J. Gen. Chem.* (U.S.S.R.) 9, 1156 (1939). An exptl. method is given for the prepn. of Na_2AlF_6 , K_2AlF_6 , and $(\text{NH}_4)_2\text{AlF}_6$ whose compns. correspond exactly to their formulas. The expts. were performed in a thermostat at 25° in vessels having Hg seals. Twelve hrs. was required for the soln. After the equl. had been reached a definite vol. was dried and weighed. The analysis of

the dry residue corresponded to the formula M_2AlF_6 . Expts. were also performed for the detn. of the soly. of Na_2AlF_6 and of K_2AlF_6 at different temps. At 0, 25, 50, 75 and 100° the soly. of Na_2AlF_6 in g. 1000 g. of the soln. was 0.1180, 0.1170, 0.1032, 0.0902 and 1.3491 and that of K_2AlF_6 in 1000 g. of the soln. 0.8001, 1.1288, 2.6125, 3.4511 and 4.5828, resp. The soly. of $(\text{NH}_4)_2\text{AlF}_6$ at 0, 25, 50, 75, 100, 125, 150 and 175° was 1.3128, 7.0285, 12.5622, 12.1217, 11.7034, 11.2510, 11.0132, 7.4100, 6.0. In contrast to the soly. of Na_2AlF_6 and K_2AlF_6 the soly. of $(\text{NH}_4)_2\text{AlF}_6$ does not rise steadily, but it has a max. at about 50°, after which it decreases sharply. At 10° and 25° the values for the soly. are the same. The unusual behavior of $(\text{NH}_4)_2\text{AlF}_6$ is evidently due to a change in its cryst. structure. A supposition that the salt dissolves incongruently was not verified, since the compn. of the dry residue was close to $(\text{NH}_4)_2\text{AlF}_6$. The difference in the solubilities of the 3 investigated salts led to an attempt to use a soln. of $(\text{NH}_4)_2\text{AlF}_6$ for the pptn. of the ions of Na and K. Preliminary expts. showed that both ions (used singly or together) were quantitatively pptd. as Na_2AlF_6 and K_2AlF_6 . Since the soly. of each ppt. was very small,

attempts were made to det. the amt. of Na and K by microchem. means. Three graphs, 3 tables and 3 references are given.

W. R. Henn

Inst. Sci. + Eng. Chem., AS, USSR

AND U.S.A. METALLURGICAL LITERATURE CLASSIFICATION

FROM STRIP

CA

7

Separation of titanium from aluminum and iron with fluorides. Sh. T. Talipov and Z. T. Safelkova (Middle Asiatic State Univ.); *Zavodskaya Lab.* 13, 810-19 (1947).—It is proposed to utilize the differences in soly. for Na_2TiF_6 , Na_2AlF_6 , and Na_2FeF_6 in sepg. Ti from Al and Fe. To sepg. Ti from Al, add to the neutral soln. of AlCl_3 and TiCl_3 3–4 times as much NaF as required to form AlF_3 . Filter off the Na_2AlF_6 ppt. and wash with 0.5% NaF soln. and finally with EtOH . Filter and dry to const. wt. at 120 – 130° . To the filtrate add HCl or H_2SO_4 , evap. to about 50 ml., and ppt. the Ti with cupferron. Wash with 2% cupferron soln., ignite, and weigh as TiO_2 . Similarly, Fe can be sepd. from Ti with the Fe pptd. as Na_2FeF_6 . In the filtrate, the Ti can be detd. by adding H_2SO_4 , evapg. to distil off the F as H_2SiF_6 , and finally titrating with ferric alum soln. H. Z. Kamich

430 314 METALLURGICAL LITERATURE CLASSIFICATION

TALIFOV, SH. F.

28936 Potenziometricheskom Titrovanii Ftortdov. Soobshch, 2. Zavodskaya Laboratoriya, 1949, No. 9 S. 1031-34-Bibltogr: 9 Nazv.

SO: Letopis' Zhurnal'nykh Statey, Vol. 39, Moskva, 1949

1. Khandeyev, V. A. "Thermodynamic analysis of systems involving
anhydrous BaF_2 - HF - H_2O at 25 degrees", Investig. Acad. Sci. USSR
Chem., No. 4, p. 5-10, (1968), (USSR), - Bibliog.: 15 items.

2. : 3-11, 11 March, (Let's Us Uphold Statey, No. 1, 12.).

ТАЛИТОВ, Ш. Т.

22357

ТАЛИТОВ, Ш. Т. i ANTIPOV, V. Ye. Ob Otkrytii Mal'nykh Kolichyestv Zn, Ni, Co, Cu, Cd i Ni v Prisutstvii Bol'shikh Kolichyestv Khrom. Doklady Akad. Nauk 1/3 CCCP, 1949, No 9, s. 16-17. Traznyuzhe Na Uzbek. Yaz--Bibliogr: s. 15

SO: Istoricheskii Zhurnal'nykh Statey Vol. 4

TALIPOV, Sh T.

3

Chemical Abst.
Vol. 48 No. 4
Feb. 25, 1954
Inorganic Chemistry

~~New method of synthesis of chromium sesquioxide. Sh. T. Talipov and V. E. Antipov (Inst. Chem., Acad. Sci. Uzbek. S.S.R.). Doklady Akad. Nauk Uzbek. S.S.R. 1949, No. 12, 27-9 (in Russian).—Pure CrO_3 (40 g.), 240 g. 10% HF, 17 g. glucose, and 30 ml. EtOH, added in that order with agitation, until a spot test on filter paper shows green edges, gave $\text{CrF}_3 \cdot 3\text{H}_2\text{O}$ in the soln. The latter was concd. on a steam bath to a paste, stirred with 50 ml. warm H_2O , kept overnight, filtered through a Pt Büchner funnel, washed with EtOH and cold H_2O , yielding 85-90% of product after 2 recrystns. Purity of 99.60% was established by analysis. G. M. Kosolapoff~~

7-27-54

Potentiometric titration of fluorides. Sh. T. Talipov and I. L. Teodorovich. *Zavodskaya Lab.* 15, 525-34 (1949).—In the potentiometric titration of F with FeCl_3 , the potential break is not precisely at the equivalence point; it should be located by a graphic method given by Chirkov (C.A. 41, 3708d). The size of the break can be improved by Treadwell's method (C.A. 40, 1117) by adding 0.7 mg. of FeCl_3 per ml. Addn. of NaCl and KBr also improves the magnitude of the potential break. Iodides must be absent but Br , sulfate, and nitrate do not interfere. The FeCl_3 soln. should be standardized directly against known NaF soln. G. M. Kosolouff

G. M. Kosolapoff

ASME-ISA METALLURGICAL LITERATURE CLASSIFICATION

Potentiometric titration of fluorides II. Sh. T. Talipov and V. L. Feodorovich Zurekhova Lab. 15, 1071-4(1989); cf. C.A. 43, 80125. The best ratio of Fe^{III}/Fe^{II} with the sharpest potential break is approx. 3.5; addn. of 0.1 ml. of soln. which is 0.001 M in $FeCl_3$ and 0.002 M in $FeCl_2$ per 10-20 ml. of test soln. gives about 600 mv. ml. potential break at the equivalence pt. in titrations of solns. which are about 0.2 M in fluorides. Typical titration curves are shown. G. M. K.

TALIPOV, Sh.T.

Certain general problems in the analytical chemistry of fluorine.

Trudy SAGU no.15:67-84 '50.

(MLRA 9:5)

(Fluorine)

TALIPOV, Sh.T.; KHADMEYEV, V.A.

Physicochemical analysis of ternary aqueous solutions consisting of alkaline earth and magnesium fluorides and alkali metal fluorides. Ternary systems MgF_2 -- KF -- H_2O and MgF_2 -- NaF -- H_2O at 20°. Trudy SAGU no.15:85-100 '50. (MLRA 9:5)
(Fluorides) (Solution (Chemistry))

CA

Physicochemical analysis of ternary aqueous systems of fluorides of alkaline earth metals and alkali metals. I. Ternary systems BaF_2 - KF - H_2O and BaF_2 - NaF - H_2O . Sh. T. Talipov and V. A. Khadeev (Central Asian State Univ., Tashkent). *Zhur. Obshchei Khim.* (J. Gen. Chem.) 20, 774-82 (1950); *J. Gen. Chem. U.S.S.R.* 20, 813-21 (Engl. translation). --The ternary systems were investigated by analyzing satd. solns. and wet residues according to the Schreinemaker method, all at 25°. No double salts or solid solns. are formed in either system. The soly. of BaF_2 in KF and in NaF was detd. at concns. of alkali fluoride up to 0.5 *M*. The exptl. results agree well with those predicted by the Debye-Hückel theory in its 2nd approximation. Values for KF concn. (*M*) and for the soly. of PbF_2 (*M*) are, resp.: 0.0, 9.23×10^{-3} ; 1.087×10^{-3} , 6.20×10^{-3} ; 5.011×10^{-3} , 1.60×10^{-3} ; 0.1001, 7.5×10^{-3} ; 0.5020, 2.2×10^{-3} . The values obtained for the soly. of PbF_2 in NaF are similar. II. Ternary systems SrF_2 - KF - H_2O and SrF_2 - NaF - H_2O . *Ibid.* 783-8. --No double salts or solid solns. are formed in either system, the diagrams being qualitatively identical with those for the corresponding Ba compds. Soly. of SrF_2 was studied at concns. of NaF and KF up to 0.01 *M*. Values of NaF concn. (*M*) and SrF_2 soly. (*M*) are, resp.: 0.00, 9.62×10^{-4} ; 1.905×10^{-3} , 4.51×10^{-4} ; 3.000×10^{-3} , 2.00×10^{-4} ; 6.982×10^{-3} , 0.3×10^{-4} ; 1.006×10^{-2} , 5.0×10^{-5} . Data obtained with KF are similar. Arild J. Müller

TALIPOV, Zh. I.

Physico-chemical analysis of ternary aqueous systems containing fluorides of alkaline earth metals and lanthanum and fluorides of alkali metals. II. Ternary systems strontium fluoride-potassium fluoride-water and strontium fluoride-sodium fluoride-water at 25°. *Yu. A. Izrael and N. N. Kabanov, Zh. fiz. khim., 1971, 45, 1059. No abstract.* The systems $\text{SrF}_2\text{-KHF}_2\text{-H}_2\text{O}$ and $\text{SrF}_2\text{-NaHF}_2\text{-H}_2\text{O}$ at 25° and the system $\text{SrF}_2\text{-KHF}_2\text{-H}_2\text{O}$ at 40° were studied by the method of potentiometric titration. The $\text{SrF}_2\text{-KHF}_2\text{-H}_2\text{O}$ and $\text{SrF}_2\text{-NaHF}_2\text{-H}_2\text{O}$ systems were studied by the method of potentiometric titration. The results of the study of the systems $\text{SrF}_2\text{-KHF}_2\text{-H}_2\text{O}$ and $\text{SrF}_2\text{-NaHF}_2\text{-H}_2\text{O}$ are presented in the form of diagrams. The results of the study of the system $\text{SrF}_2\text{-KHF}_2\text{-H}_2\text{O}$ at 40° are presented in the form of diagrams.

[illegible]

TALIPOV, Sh.T.; ANTIPOV, V.Ye.

Investigation of solubility in the system chromium fluoride-sodium fluoride-water at 30°. Trudy Inst. Khim., akad. Nauk Uzbek. S.S.R. 3, 206-13 '52.
(CA 47 no.22:11930 '53) (MLRA 6:3)

1. Uzbek Acad. Sci., Tashkent.

TALIFOV, Sh.T.; ANTIPOV, V.Ye.

Separation of large quantities of chromium from small quantities of zinc, copper, nickel, cobalt, and cadmium. Trudy Inst. Khim., Akad. Nauk Uzbek. S.S.R., Inst. Khim. 3, 214-22 '52. (MLRA 6:3)
(CA 47 no.22:12106 '53)

TALIPOV, Sh. T. GSEL'CHENKO, P. F.

"Solubility of Some Difficult to Dissolve Silver Salts in Solutions of the
Systems Ag_3PO_4 - H_2HPO_4 - H_2O and Ag_3PO_4 - K_2HPO_4 - H_2O at 25°

Dokl AN Uzb SSR, No. 5, 1952, pp 42-44

abs

W-31098, 26 Nov 54

TALIPOV, Sh.T.; ANTIPOV, V.Ye.

Investigation of solubility in the system aluminum fluoride-lithium fluoride-water at 25°. Trudy Inst. Khim., Akad. Nauk Uzbek. S.S.R. Inst. Khim. 3, 223-9 '52. (MLRA 6:3)
(CA 47 no.22:11929 '53)

144, p. 4, 211, 1.

✓ Determination of fluorine in insoluble fluorides by the method of I. V. Tananaev, Sh. T. Talipov, Z. T. Sofelkova, and T. B. Amirkhanova. ~~Trudy Brezhevninsk. Gos. univ. (Tashkent)~~ 33, No. 4, 76-82 (1952); cf. C.A. 27, 43. When this earlier method was studied by detns. of CaF_2 , the abs. error was about 2%. The following modified method is proposed. Mix 0.1 g. of fluoride sample and 1 g. ferrosilicon in a 100-ml. round-bottomed flask connected with a thermometer, dropping funnel, and condenser; add 60 ml. of 12N H_2SO_4 through the funnel and then pass air into the mixt. while the flask is heated. The distd. H_2SiF_6 is collected in a flask contg. KCl. After distn. is complete (as shown by a temp. of 130° in the flask and by cooling of the delivery tube) any H_2SO_4 in the distillate is oxidized with I_2 and the color is removed with $\text{Na}_2\text{S}_2\text{O}_3$; the K_2SiF_6 is neutralized to a methyl orange-indigo carmine end point, and then the distillate is titrated to a phenolphthalein end point. With this modified method the error averaged only about 0.30%; results of detns. on natural phosphates approximated those by the Th method. Errors tend to be neg., since the main source of error is incomplete distn. The changes in the method (use of ferrosilicon, passage of air, increasing the amt. of H_2SO_4 , etc.) improved the accuracy, shortened the distn. time, and simplified treatment of the distillate. F (11-65 mg.) was detd. as above.

Malcolm Anderson

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TALIPOV, Sh. T.

✓ Potentiometric titration of microquantities of soluble fluorides. Sh. T. Talipov, I. L. Teodorovich, and N. P. Shestakova. *Trudy O'zbekist. Gosudarst. Univ. (Tashkent)* 33, No. 4, 83-90(1962).—An aq. soln. of NaF was placed in a 5-ml. beaker, this was heated at 70-80° and a known vol. (an excess) of 0.0043M $\text{Ca}(\text{NO}_3)_2$ was added. After cooling, the soln. was dild. with an equal vol. of alc., and one drop of 0.01% $\text{K}_3\text{Fe}(\text{CN})_6$ soln. and an excess of solid NH_4Cl were added. The beaker was placed in an app. contg. a Pt electrode, which was also a stirrer, and a calomel reference electrode with a salt bridge. The soln. was stirred 1 min., let stand 1 min., and the e.m.f. was detd.; then the excess Ca^{++} was titrated with 0.500M $\text{K}_3\text{Fe}(\text{CN})_6$ according to the equation: $2\text{NH}_4^+ + \text{Ca}^{++} + [\text{Fe}(\text{CN})_6]^{4-} \rightarrow \text{Ca}(\text{NH}_4)_2 + [\text{Fe}(\text{CN})_6]^{3-}$. F (0.019-1.90 mg.) was detd. in this way. Addn. of 10 ml. of HOAc (to 0.380 mg. F) or of 2 mg. SiO_2 or 0.6 mg. Na_2SiO_3 with 2 drops of methyl red (to 0.061 mg. F) did not interfere.

Malcolm Anderson

(2)

TALIPOV, Sh. T.

Determination of sodium as Na_2AlF_6 . Sh. T. Talipov and
 T. Solovkova. *Trudy Srednaziat. Universit. (Tashkent)* 33, No. 4, 91-3 (1962).—NaCl solns. of various
 concns. (3-20 mg. as Na) were placed in tubes, $\frac{1}{4}$ their vol.
 of satd. $(\text{NH}_4)_2\text{AlF}_6$ (7.80 g./l. at 25°) was added, and the
 solns. were centrifuged 4-5 min. The supernatant fluids
 were decanted and the ppts. were washed 3-4 times with
 0.5% $(\text{NH}_4)_2\text{AlF}_6$, then 2-3 times with 1:1 alc.- H_2O . The
 ppts. were dried to 120-30° and weighed as Na_2AlF_6 (cryo-
 lite). The method is rapid and comparable in accuracy to
 the sulfate method, as detns. on mirabilite by both methods
 showed. P^- ions, given here by hydrolysis of $(\text{NH}_4)_2\text{AlF}_6$,
 lowers the soly. of Na_2AlF_6 ; the presence of 0.1 mole/l. of
 P^- reduces the soly. of Na_2AlF_6 from 1.86×10^{-3} (in pure
 H_2O) to 6.3×10^{-5} moles/l. Presumably the presence of
 other alkali metals interferes with this method. M. A.

14 Lipov, 20. 1.

✓ Gravimetric determination of magnesium as $KMgF_2$.
Sh. T. Talpov and Z. T. Sofelkova. *Trudy Sredneaziat.
Gosudarst. Univ.* 33, No. 4, 95-8 (1983).—Solns. contg. vari-
ous concns. of $MgSO_4$ were placed in tubes with 10 ml. of
0.5-7% KF soln., and the colloidal ppts. that formed were
centrifuged. The supernatant liquids were drained off and
the ppts. were washed 5 times with 60% alc. (aq.) and 3
times with 10% alc., the ppts. being centrifuged after each
washing. The ppts. were dried at 130° , ignited to const.
wt. at $450-600^\circ$, and weighed as $KMgF_2$. To det. Mg in
Al alloys, dissolve a 2-g. sample of alloy in 35 ml. of 25%
 $NaOH$ and filter, wash the ppt. with hot 1% Na_2CO_3 , and
then redissolve in 40 ml. of hot HCl contg. some HNO_3 .
Neutralize the combined filtrates with NH_4OH , and remove
Cu, Pb, Fe, and other elements with H_2S ; then det. Mg as
above and also by the phosphate method. The method is
recommended for up to 0.1 g. MgO . Best results are given
with a $Mg^{++}:KF$ molar ratio of 1:3; when this ratio is too
high, MgF_2 may be formed. Malcolm Anderson

TALIPOV, Sh. T.

USSR.

✓ Solubility of some slightly soluble silver salts in electrolyte solutions of the systems: $\text{Ag}_3\text{PO}_4\text{-Na}_2\text{HPO}_4\text{-H}_2\text{O}$ and $\text{Ag}_3\text{PO}_4\text{-K}_2\text{HPO}_4\text{-H}_2\text{O}$ at 25°. Sh. T. Talipov and P. F. Oshchlenko. *Doklady Akad. Nauk Uzbek. S.S.R.* 1953, No. 5, 42-4; *Referat. Zhur. Khim.* 1954, No. 17845.---The soly. of Ag_3PO_4 was studied in solns. of Na_2HPO_4 and K_2HPO_4 in concns. of 10^{-2}M to satn. The solid phase at all points of the studied system corresponded to pure Ag_3PO_4 . The soly. of Ag_3PO_4 did not change on increasing the concn. of the added salt to 10^{-2}M but increased at higher concns. The soly. product of Ag_3PO_4 increased from 1.85×10^{-23} to 1.21×10^{-23} in 0.820M Na_2HPO_4 and to 1.17×10^{-23} in 1.51M K_2HPO_4 . At the same time the activity product practically did not change. The activity coeff. was calcd. with the aid of the 2nd approximation of the Debye-Hückel equation. M. H. H.

① *fact*

TALIPOV, Sh. T.

"Solubility of Some Difficult-to-Dissolve Silver Salts in Solutions of
Electrolytes" Dokl AN Uzb SSR, No 7, 1953 pp 29-31

Talipov, Sh. T. ; Obel'chenko, P.F.

abs

W-31098, 26 Nov 54

Investigation of the determination of fluoride ions using the potentiometric method," *Anal. Chem.*, **38**, No. 5, 1966, 92-94.

Investigated the accuracy of the potentiometric titration of Ba^{2+} with Ba^{2+} using the Ba^{2+} ion-selective electrode. Found a relative error was $\pm 1.0\%$. (*Anal. Chem.*, No. 1, 1966)

U.S. Pat. No. 3,100,000, 1964

TALIPOV, Sh.T.; AKHMEDOV, K.S.

In memoriam Boris Georgievich Zaprometov. Kolloid. Zhur. 15,223-4
'53. (MLRA 6:5)
(CA 47 no.17:8428 '53)

Talipov, Sh. T.

3

✓ In memoriam Boris Georgievich Zagladetov. Sh. T.
Talipov and K. S. Akhmedov. Colloid J. U.S.S.R. 13,
229-30 (1953) (Engl. translation).—See C.A. 47, 8428h.
H. L. H.